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ABSTRACT

This paper describes a partnership project with state parks in Florida and Pennsylvania that was inspired by and builds upon the work done through the Florida Office of Environmental Education with public schools and state parks in Florida. The project is a curriculum reform effort that combines the expertise and resources of a state park, two university departments, and a laboratory school. It is designed to investigate and develop the concept of service-learning to enhance the relevance and meaning of the education of university undergraduate students, elementary students, and the public users of the state park resources. This document lists project activities and includes materials that have been used in the project. (JRH)

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ED 408 191

SERVICE LEARNING IN SCHOOL SCIENCE: A PARTNERSHIP WITH STATE PARKS IN FLORIDA AND PENNSYLVANIA

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Paper presented at the National Science Teacher's Association Annual Convention, New Orleans, April 7, 1997

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Introduction

The PARKNERSHIP project was inspired by and builds upon the work done through the Florida Office of Environmental Education with public schools and state parks in Florida. The project is a curriculum reform effort combining the expertise and resources of a state park, two departments at Indiana University of Pennsylvania (IUP), and the University School (A laboratory school in the College of Education at IUP). The goal of the project is to investigate and develop the concept of service-learning to enhance the relevance and meaning of the educations of University undergraduate students, elementary students at IUP and in the region, and the public users of state park resources. For young students, service learning projects have been engaged in, in the environment of Yellow Creek State Park in Pennsylvania. For college students, service has been through teaching technology to elementary students and in assisting with field day projects.

The University as a Parknership Resource

To experiment with broadening the state park/public school service-learning team, the Pennsylvania project recruited the assistance of IUP students from two sources. First, the Department of Communications Media provided the project with two upperclassmen on independent studies for the fall and spring semesters. The role of these individuals was to instruct the sixth graders in the use of photography, videotaping/editing, Powerpoint (presentation software), and the Internet for the purposes of communicating our year-long PARKNERSHIP experience. Following instruction in our classroom, the sixth graders took photographs, and videotape during each event throughout the year.

In addition to the Communications Media collaboration, a professor in our Economics Department, teaching a senior synthesis course entitled "Saving Our Planet Earth" has worked with the project and supplied students from his course as field assistants. This elective assignment has fulfilled a service criteria in their course. Individuals from the class, both fall and spring, helped by teaching us how to establish a homepage, and through labor given in support of a major field day scheduled for April 25, 1997. Tasks in preparation for that day include the preparation of thirty holes for the planting of trees and the acquisition of several hundred small rocks on which 261 public school 6th graders will paint a park creature according to their own pre-made plan.

An exciting success in funding our project came through an IUP University Senate Research Grant. The $1483 grant was hard won following multiple amendments and resubmissions. The funds provided our class with a color scanner, a color ink-jet printer, $500 for service project supplies, and $383 for a research assistant to work in project assessment. The scanner has allowed the sixth graders to insert their own photographs from the park into their computer presentations. At our December Celebration, a special projector (Proxima) enabled us to project our computer presentations so that a large audience could view them.

The University resources freely given to our project greatly enhanced the scope of the service-learning PARKNERSHIP. Through the emphasis on the communication of project activities through

a variety of technologies, the project gave motivational activity in the language arts. The students studied and wrote about park animals ranging from black widow spiders to salamanders to brook trout. Each student sought information on the World Wide Web, downloaded images, and prepared a multimedia presentation for the public.

Project Activities and Their Order

*Spring 1996 - Learned of the Florida PARKNERSHIP program.

*June 1996 - Contacted Yellow Creek State Park, they were interested in the service-learning concept.

*August 1996 - Met with Park Manager and Environmental Education Interpreter to discuss possible projects.

*September 1996 - Park Manager and Environmental Education Interpreter visited University School to tell about the park and discuss mutually beneficial projects.

*September 1996 - Met with Communications Media and Economics professors to arrange collaborations.

*October 4, 1996 - First field day at the park. Familiarization with the park and Ridge Top trail measurement.

*October, 1996 - Park creature research in classroom.

*October, 1996 - Constructed two wood duck boxes, two bat boxes, and trail mileage markers in class.

*Blacklegs Sportsman's Club agreed to have the class visit the trout nursery and help stock mature trout at the park in the spring, 1997.

*November 22, 1996 - Second park field day. We installed wildlife habitats and marked the Ridge Trail (Students could not do the installations and weren't very active on this day. It was the least interesting day for them).

*January 7, and 24, 1997 - Met with Park personnel to plan the March for Parks. 261 sixth graders will participate in a service-learning day on April 25, 1997.

*February 1997 - Senate Research grant awarded. Scanner, printer, materials money, and a research assistant afforded by the grant.

*February 11, 1997 - Planning meeting held with teachers from two school districts, park personnel, University faculty, and bass club members.

*March 21, 1997 - Sixth grade class trip to the park to harvest trees for replanting on April 25. Sixty red maple, sugar maple, and white oak harvested. Never have sixth graders worked so hard.

*April 10, 1997 - Sixth grade practices the construction of bass nesting and nursery structures in preparation for building 30 on Apr. 25.

*April 25, 1997 - The March For Parks. The greatest function of this day is that the laboratory school is sharing University resources with public school colleagues.

The following pages are documents which have been used throughout the year.

September 5, 1996

University School/Communications Media "Parknership"

Project Supervisors

Dr. Dennis Ausel, Communications Media, x3099
Dr. Ray Beisel, University School, x5691

I. Needs of the University School Sixth Grade

1. To develop skill in communications

2. To learn and use videotape, photography, Powerpoint, and Internet services as tools for communications.

3. To make formal presentation of the Parknership project to an audience, using all of the communications technologies learned.

II. Roles of Communications Media Interns Enrolled in CM____.

1. To teach the use of videotape, photography, Powerpoint, and Internet services to the sixth grade students.

2. To assist the sixth grade class in the real application of technology skills for the purpose of communicating the process and products of the Parknership project.

3. To accompany the sixth grade, at least one time during the fall semester to Yellow Creek Park for the purpose of assisting in the documentation of the project through photography and videotape.

Expectations

To invest a minimum of 1 hour each week working with the sixth graders on the tasks specified above.

To invest time in the preparation of lesson plans for instruction on topics named above. To submit lesson plans to both supervisors at least one full day in advance of the session (to allow for feedback and modification if needed).

PowerPoint Schedule
Lesson 1
October 31, 1996

I. Show PowerPoint sample presentation
II. Students will create their own short presentation
    A. Open PowerPoint
    B. Open new presentation
    C. Create slides using autolayouts or blank slides
        1. Text
            a. Size
            b. Font
            c. Color
            d. Shadow
        2. Clip Art
            a. How to bring in
            b. Resize and move
            c. Alter
        3. Objects
            a. Graph
            b. Chart
            c. Sound
            d. Scanned Image
        4. Show slides in all formats
            a. Individual Slide
            b. Outline
            c. Slide Sorter
            d. Notecards
            e. Slide Show
        5. Add builds and transitions
            a. Slide Sorter
            b. Build
            c. Transition
    D. Show Slide Show
    E. Save Presentation

7

Pennsylvania Department of Conservation and Natural Resources

RR 1, BOX 143D
PENN RUN, PA 15765
January 21, 1997

YELLOW CREEK STATE PARK

412-357-7913
FAX: 412-357-7956

Dr. Raymond Beisel
Indiana University of Pennsylvania
University School
104 Davis Hall
Indiana, PA 15701

Dear Dr. Beisel:

I wanted to take this opportunity to thank you for your efforts in the organization and implementation of the learning through service project you call "Parknerships" in conjunction with Yellow Creek State Park. I believe that hands-on environmental learning experiences are the key to future management of our precious natural resources. It is a little known fact that Pennsylvania has a state park within 25 miles of every resident of PA and it is my hope that the programs implemented here will help to make our state parks more accessible to other schools.

Although many ideas, such as the construction of a butterfly garden are excellent ones, our funds are limited partly by the fact that the Bureau of State Parks currently funds and operates 116 state parks, the third largest state park system in the country. We are willing to assist your efforts as much as we are able but may have to prioritize projects based on available funds.

I look forward to working with you in 1997.

Sincerely,

Kenneth E. Bisbee
Park Manager

pc: File

KEB:dd

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February 14, 1997

Dear Colleague,

On Friday, February 21 we are looking forward to meeting with you to plan the March for Parks field day scheduled for April 25. The group will meet in the Oak Room West, located in the lower level of Foster dining hall at 12:30 for a buffet lunch (provided by the Office of Educational and School Partnerships, and the University School). Foster is the next building uphill from Davis Hall. A temporary parking permit for the Stadium Lot is enclosed.

Following lunch we will discuss the content and management of the park day. All sixth graders from Penns Manor, Marion Center and University School will attend. There will be 261 students. University undergraduates from IUP will assist us in working with the students. The goal for the afternoon is to create a tight plan for activities, groupings, timing, etc. In the spirit of a strong team approach, we should each leave Friday afternoon knowing which particular aspect of the field day is our personal preparation responsibility.

Please bring with you any reference materials which apply to the study of the park environment. In particular, bring anything you may have relating to freshwater fisheries, aquatic life, or park animals. We will discuss the preparations the students can do prior to Apr. 25, this will be the learning part of the service/learning concept.

See you Friday.

Sincerely,

Ray Beisel
Linda Armstrong

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February 28, 1997

Dear Colleagues,

The planning meeting Fri. 2/21 well served the purpose of refining the plan for April 25. The following details were agreed upon. If you spot any error or foresee something we have not considered, please let me know.

1. Friday May 2 will be our rain date. This option will be exercised in the event of dangerous weather or rain excessive enough to hamper our outdoor activities.

2. Each school will cover their own permission slips. Information on any special needs children, that is, children with physical or medical conditions, should be provided to Linda Armstrong prior to Apr. 25.

3. Each child is to bring a lunch. Lunches should be boxed together and labeled with the school name, teacher name, and list of student names. There should be no glass containers.

4. Black and white film will be provided to each classroom teacher. Film development will be taken care of through the IUP Public Relations Office.

5. Each school group will design and provide their students with name tags. Name tags should be composed of the school colors and include the classroom teacher's name so that groups can be easily differentiated.

6. Linda Armstrong will send each of you materials for use in preparing students for the learning activities of April 25.

7. We will meet as a group at the Lakeview Pavilion (the first right inside the park entrance) on April 11 at 3:30 to review our plan for the 25th.

8. I have enclosed a revised schedule for your review. Any input?

9. A project participant list is enclosed.

10. We will hold a brief wrap-up session at the end of the day (approximately 1:45) on April 25.

11. Feel free to call either Linda or myself if needed.

Park Schedule April 25, 1997

Activity	10:30	11:05	11:40	12:00	12:35	1:10
Bass Nesting and Nursery Structures	1	2	3	L	4	5
Games	2	1	5	U	4	3
Aquatic Life	3	2	1	N	5	4
Trees	4	3	2	C	1	5
Art	5	4	3	H	2	1

1 = Keith (Marion Center), Thomas (Penns Manor).
2 = Malicky (Marion Center, Nease (Penns Manor).
3 = Cameter (Marion Center), Zuchelli (Penns Manor).
4 = Cornman (Marion Center), King (Penns Manor).
5 = Michalisin (Marion Center, TBA (Marion Center).

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March 14, 1997

Dear Parent/Guardian,

On April 25 all sixth grade students from Marion Center, Penns Manor, and University School at IUP have been invited to participate in a "March for Parks" at Yellow Creek State Park. This local event held in conjunction with Earth Day will be part of America's only national walk event supporting parks and open spaces. The focus for the day will be both service to the park and outdoor learning.

Five activities are planned for the day, first, the March for Parks will tour the nearly three hundred participants through the park environment. We encourage each participant to seek one or more sponsors to donate $2.00 as a walk-a-thon contribution to service projects at the park. The money collected will be used to enhance the park as a public recreational/educational site. Did you know that the state of Pennsylvania has placed a state park within 25 miles of every resident statewide? Our state parks need local support. The construction of a butterfly garden will be one use of the march proceeds. Your child does not need to bring any money to the park April 25 to participate. The sponsorship activity is completely optional. Their effort however to find support is hoped to give each child a sense of pride and ownership in our public park.

In addition to the day-opening march, the students will all participate in the construction of 35 bass nesting and nursery structures. As these are completed the PA Fish and Boat Commission will be distributing them to planned sites in the lake. Students will not be on the water. Next, students in small groups will plant a tree. These plantings of sugar maples and white ash will help complete the original park landscaping plan. Finally, all students will participate in environmental games, and do an art project focused on a park creature. These projects will be souvenirs of our PARKNERSHIP field day.

We are looking forward to a great day of service, environmental learning, and fun. If your child chooses to enlist a sponsor, please fill in the enclosed form and return it with the dollars pledged by April 24.

Thank You,

Ray Beisel, March for Parks Planning Committee
University School

MARCHER'S PLEDGE FORM

Marcher's name _____

Supporter's Name	Supporter's Address	Ammount collected
1. My own pledge		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Total Dollars Collected $ _____

MARCH FOR PARKS!

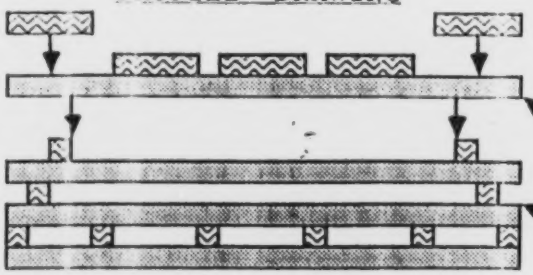
PENNSYLVANIA BLACK BASS NESTING/NURSERY STRUCTURE CONSTRUCTION GUIDE

MATERIALS:
ROUGH CUT
GREEN HEMLOCK
2"X2"X4'-20
1"X8"X8'- 5
NAILS:
2 LBS -16d

CONCRETE
BLOCKS 8"
8-2 CORE
35# each

NOTE:
PROFILE DRAWING DEPICTS HOW PRE-FABRICATED COMPONENTS ARE COMBINED ON BOARD WORK BOAT.

PROFILE DRAWING

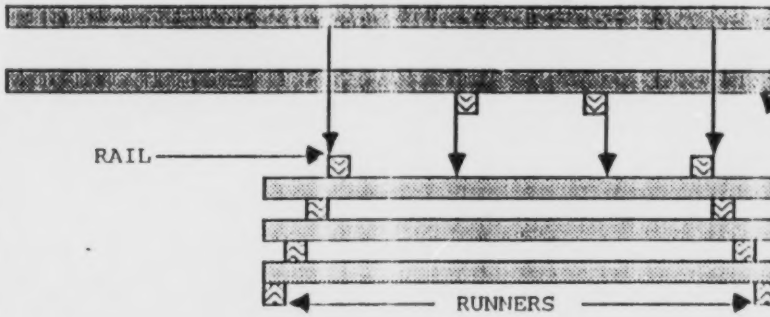


NOTE:CONCRETE BLOCKS ARE ADDED AFTER BOTTOM IS PLACED ON WORK BOAT

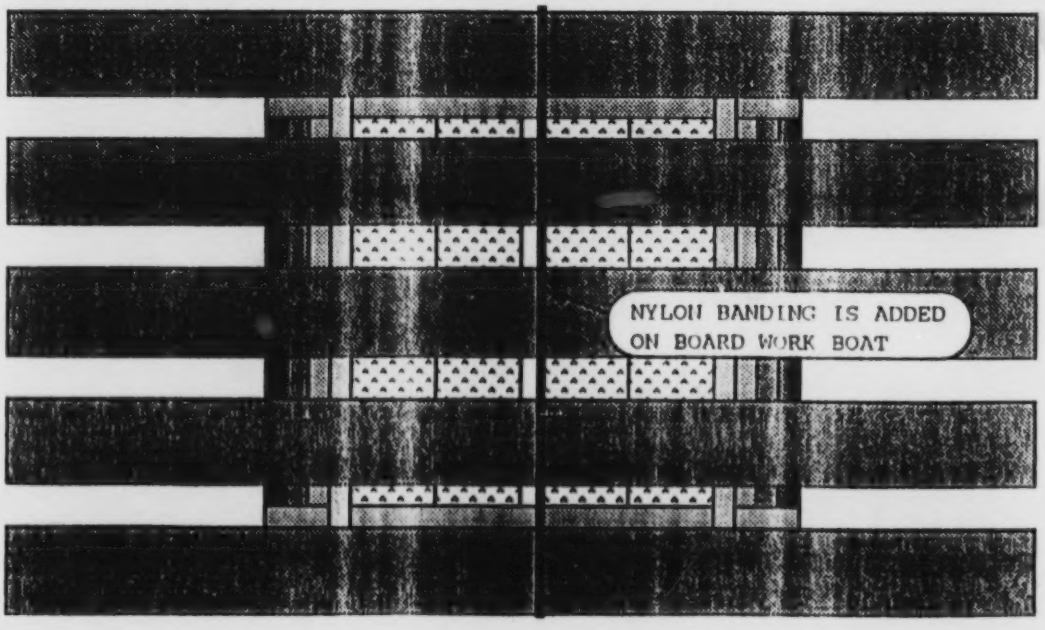
PRE-FAB TOP

PRE-FAB BOTTOM

SECTION DRAWING



WITH BOTTOM ON BOARD WORK BOAT NAIL PRE-FAB TOP TO BOTTOM, THEN NAIL LAST TWO BOARDS ON RAILS AT THE ON BOTH SIDES OF BOTTOM.



PLAN DRAWING

PFBC 9/7/95

DFH 95

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University School
Indiana University of Pennsylvania
104 Davis Hall
Indiana, Pennsylvania 15705-1087

(412) 357-2424

IUP

To: **Sixth GradeTeachers and Students Involved in the March for Parks and the Parknership Project on April 25, 1997**

From: Dr. Ray Beisel and Dr. Marjorie Mambo, University School

Ref: **Art Project**

One of the rotating activities in which students will participate on Friday, April 25 at Yellow Creek Park will be painting a rock as a park creature (mammal, bird, reptile, amphibian, crustacean, insect or arachnid) as we discussed at the February 21 meeting. Sixth Graders will be encouraged to paint many details of fur, scales, feathers, patterns, as well as facial features on a rock of their choice. It would be helpful if students sketched some ideas (as homework if desired) of creatures within rock shapes to further understand how to fit a creature into a given form and make it look realistic. (See enclosed examples which might be shown to them).

College students will help us collect and wash rocks prior to April 25. These rocks or stones will be about the size of a fist or a little smaller. Boxes will be needed for each group to bring home their projects. Could you please bring some for your class? We will provide the paints, brushes, water and paper towels.

Looking forward to seeing you and working with the students.

Please distribute the examples and information to your colleagues.

Executive Summary

PARKnership

A Cooperative Program Between Florida's Schools and State Parks

Coordinated by
The Florida Park Service, Department of Environmental Protection
in cooperation with
The Office of Environmental Education, Florida Gulf Coast University

Goal: To develop a student service program as a cooperative environmental education initiative of the Florida Park Service and Office of Environmental Education.

Objectives include:

1. To provide students in Florida's K-12 schools with the opportunity to perform service learning in state parks and provide opportunities for students to participate in environmental education through hands-on learning experiences that supplement classroom instruction in environmental education.

2. To increase student awareness of environmental career opportunities, requirements, and rewards.

3. To provide students with structured opportunities to learn and practice job-related skills and behaviors.

PARKnership:

* Involved more than 2,352 students in service learning projects, including 467 students considered at-risk.

* Has successfully matched 29 of Florida's elementary, middle, and high schools with 22 selected state parks.

* Held five (5) regional Summits to share information, recognize students, teachers and park staff for their accomplishments and plan for next year. More than 250 participants attended the Summits representing twenty-four schools and twenty-one parks. Eleven new schools and seven parks have expressed an interest in becoming part of the program next year.

* Allowed students to provide service to the parks through hands-on learning experiences in environmental education.

* Enabled students to choose projects from a variety of needs such as endangered species surveys and plant inventories, planting sea oats, constructing nature tails, maintaining native nursery plants, and other projects mutually agreed upon by the park and the students with their teacher sponsor(s).

* Allowed students to experience feelings of pride and empowerment from providing service in their own communities and to develop feelings of ownership, responsibility and support for the park and the environment.

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* Provided opportunities through structured activities and projects to build life skills such as communication, critical thinking, and self-esteem, while enhancing the students' knowledge of math, science, environmental awareness and career opportunities. Valuable job and safety skills were learned, including handling small hand tools.

* One school and park received:
    * The J. C. Penney Golden Rule Award
    * The Edge of Excellence Mini-Grant
    * Outstanding Business Partner for Sarasota County Schools
    * Has been selected to be presented at the National Gifted Educators Conference, November, 1996

* One project discovered a natural spring pond while conducting exotic plant removal and worked to restore it to its natural ecosystem.

* Three students have been conducting seagrass research for a park and were selected to present their findings at their Regional Science Fair and the Florida Junior Academy of Sciences.

* Students in two schools produced an information video for their park, including research, script writing and filming, with one school receiving assistance from its local FOX TV station.

* Students at another school wrote letters to their senator thanking him for his support of equipment purchase benefiting the park.

* Several schools helped build trails including one that is handicapped accessible. In the words of one teacher: *"Not only are we building a trail; we are building bridges of human understanding that will shape these children for a lifetime." Pine View School Teacher*

* Texas and South Carolina representatives requested information for possible replication.

* Thirteen schools were recognized in press conferences held around the state by the Florida Park Service in appreciation of their contributions to the state parks.

* Presentations/Displays were made at:
    * Florida Association of Counties, June, 1996, DRP Staff
    * Florida Forest and Environmental Education Teacher Training, June, 1996, OEE Staff
    * SCENE Meeting, March, 1996, DRP Staff
    * 96 Florida Service Learning Intitutes, February, 1996, OEE Staff, New Challenge School Teacher and Barrier Islands GEOpark/Port Charlotte Beach SRA Park Ranger
    * Social Studies Conference, October, 1996, OEE Staff
    * Florida Association of Science Teachers, October, 1995, OEE Staff

* Nine newspaper articles about students' participation in the program were featured; one school wrote letters to the editor which were presented on the editorial page.

* Two PARKnership schools received media coverage on their local television stations.

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PARKnership Cooperative Program

Florida Park Service, Department of Environmental Protection
in cooperation with
Office of Environmental Education, Florida Gulf Coast University

Goal: To develop a student service program as a cooperative environmental education initiative of the Florida Park Service and Office of Environmental Education.

Objectives:

1. To provide student conservation groups in Florida's K-12 schools with the **opportunity to perform service in state parks**.

2. To provide students with an **opportunity to participate in environmental education through hands-on learning experiences that supplement classroom instruction in environmental education**.

3. To assure essential **support to students** for these projects in terms of facilities, materials, transportation, guidance/supervision, and other types of support, when necessary.

4. To increase student **awareness of environmental career opportunities, requirements, and rewards**.

5. To have a **cooperative work program and a working partnership between the public education system and the state park system in developing meaningful environmental/park service projects**.

6. To provide **orientation programs for teachers and other educators** to assist student conservation clubs in park projects.

7. To jointly develop **an evaluation process to determine the effectiveness** of the **"PARKnership" program**.

8. To provide students with **structured opportunities to learn and practice job-related skills and behaviors.**

PARKNERSHIP: A SHARED VISION OF EXCELLENCE BETWEEN FLORIDA STATE PARKS AND SCHOOLS

WHO: PARKnership, a joint effort between the Florida Park Service, Department of Environmental Protection, and Office of Environmental Education, FL Gulf Coast University is currently entering its fourth successful year.

WHAT: The fourth year program, funded in part through a grant from the Florida Advisory Council on Environmental Education, (FACEE) matched student conservation groups in 30 of Florida's elementary, middle, and high schools with 22 selected state parks to provide service to the parks and hands-on learning experiences in environmental education to students. PARKnership enables students to choose projects from a variety of endangered species surveys and plant inventories, planting sea oats, constructing nature tails, maintaining native nursery plants, and other projects mutually agreed upon by the park and the students with their teacher sponsor.

WHY: In performing these projects, students have the opportunity to experience feelings of pride and empowerment from providing service in their own communities while learning environmental awareness, appreciation, action, and critical thinking skills.

WHEN: The fifth year of the program will commence during the 1996-97 school year, with the park visits to be mutually agreed-upon by the park and school, based on the requirements of the projects they select. Some service projects may begin in June, and others will be initiated in September. Initial planning meetings between school and park partners took place at the five regional PARKnership Summits, held in April and May, 1996. Planning meetings between school representatives that could not attend the Summit and park staff will take place in 1996. Following the planning meeting, a park ranger will visit students and their teacher sponsor at the school to provide an orientation to the park. Student groups should plan to visit the park in May or in September prior to initiating their service projects.

HOW: The schools and parks will jointly decide on the type of service projects, frequency and timing of work visits, and other issues related to the service projects.

For more information contact Rosemary Prince, CLP, Research and Training Manager, Bureau of Operational Services, Division of Recreation and Parks, Department of Environmental Protection, 3900 Commonwealth Boulevard. Mail Station 535. Tallahassee. FL 32399-3000.
Phone (904) 487-2319, FAX (904) 487-3947.

Partial funding for the PARKnership program is provided through a grant from the Florida Advisory Council for Environmental Education (FACEE), from a portion of the proceeds from the sale of "Save the Manatee" and Florida panther license plates that are deposited into the Save Our State Environmental Education Trust Fund.

SE010598

PARKnership

A Cooperative Program Between
Florida's Schools and State Parks

Coordinated by
The Florida Park Service, Department of Environmental Protection
in cooperation with
The Office of Environmental Education, Florida Gulf Coast University

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1995/96 PARKnership Program

Special Thanks To...

Virginia B. Wetherell
Secretary
Department of Environmental Protection

Fran P. Mainella, CLP
Director
Division of Recreation and Parks
Department of Environmental Protection

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Region 5	Barbara Berry

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	Katrina A. Boler
District 5	Richard A. Domroski
	Carol A. Pilzer
	Kim T. Chase

Florida State Parks

Big Lagoon State Recreation Area - Phil Leeser, Jim Crane
Bill Baggs Cape Florida State Recreation Area - Lee Niblock, Elizabeth Elliott, Edwin DeJesus
Cayo Costa State Park - Reggie Norman, Sally Falkinburg
DeLeon Springs State Recreation Area - Steve Banton, Toussiant Roberson
Don Pedro Island State Recreation Area - Reggie Norman, Michael Cohorn
Hillsborough River State Park - Scott Robinson, Jon Castle
Honeymoon Island State Recreation Area - Perry Smith, Mark Knapke, Doug Watson
Hugh Taylor Birch State Recreation Area - John Frosbutter, Russell Mapp, Bob Quarterman, Kay McGary, Chuck Swearingen, Charles Schindler, Pierre Bernard, Lisa Cook
John D. MacArthur Beach State Recreation Area - John Fillyaw, Ann Mathews
John Pennekamp Coral Reef State Park - Robert Wilhelm, O'Neil Proulx
Lignumvitae Key State Botanical Site - Pat Wells
Little Talbot Island State Park - Bob Joseph, Heather Shuke
Maclay State Gardens - Paul Riggs, Ken Lewis
Manatee Springs State Park - Paul Perras
Oleta River State Recreation Area - Mark Nelson, Warren Poplin
Oscar Scherer State Park - Joe Smyth, Bobbi Rodgers
Paynes Prairie State Preserve - Jack Gillen, Steve Davenport
Port Charlotte Beach State Recreation Area - Reggie Norman, Richard Storsberg
Ravine State Gardens - Frank Alogna, Linda Stratman
St. Andrews State Recreation Area - Cecil Dykes, Shelley Yancey, Ricky Narcisse
Stephen Foster State Cultural Center - Valinda Subic, Elaine McGrath
Tomoka State Park - Benny Woodham, Corine Burgess, Larry Gavagni, Charles Dutoit, Sylvia Bollinger, Joe Issacs
Wakulla Springs State Park - Sandy Cook, Ron Weiss, Jean Koch
Wekiwa Springs State Park - Pete Scalco, Scott Spaulding, Steve Eldridge

Florida Schools

Brownsville Middle School - Kim Livingston
Calvin Hunsinger School - Gina Massotto
Chiefland Middle School - Tim Roach
Clay Springs Elementary School - Diana Eagles
Columbia County Schools ESE - George Perry, Chris Bond
Coral Park Elementary School - Sandra Bell
Coral Shores High School - David Makepeace
Countryside High School - Patti Boylan
Dunbar Elementary School - Bonnie Swanson
Hutchinson Beach Elementary School - Doedy Lark
Interlachen High School - Eric Sheffield
Jim Bailey Elementary School - Shelia Lollar, Dena Wiggers
Jupiter High School - Ron Wenrick
Key Biscayne Elementary School - Bobbie Savage
Key Largo Elementary School - Sue Hale
Kimball Wiles Elementary School - Zane Greathouse
Lemon Bay High School - Doug Stone
Maclay School - Denny Bunn
McInnis Elementary School - Irene Kale
New Challenge School - Tom Dunn
North Miami Beach High School - Dr. Barbara Rothstein
Ormond Beach Middle School - Dawn Huro, Jerry Frey
Pearson Elementary School - Shirley Mills
Pine View School for the Gifted - Denise Maughan, Barbara Shirley, Staffanie Olson
Port Charlotte High School - Bill Burns
R. Frank Nims Middle School - Karen Study
Sabal Point Elementary School - Linda Sawyer
Sandpiper Elementary School - Carol Wilson
Welleby Elementary School - Carol Wilson
Wesson Elementary School - Karen Deitrich

WOFL - Fox 35
Mark Drury

Executive Summary
June 30, 1996

PARKnership
A Cooperative Program Between Florida's Schools and State Parks

Coordinated by
The Florida Park Service, Department of Environmental Protection
in cooperation with
The Office of Environmental Education, Florida Gulf Coast University

Goal: To develop a student service program as a cooperative environmental education initiative of the Florida Park Service and Office of Environmental Education.

Objectives include:

1. To provide students in Florida's K-12 schools with the opportunity to perform service learning in state parks and provide opportunities for students to participate in environmental education through hands-on learning experiences that supplement classroom instruction in environmental education.

2. To increase student awareness of environmental career opportunities, requirements, and rewards.

3. To provide students with structured opportunities to learn and practice job-related skills and behaviors.

PARKnership:

- Involved more than 2,352 students in service learning projects, including 467 students considered at-risk.

- Has successfully matched 29 of Florida's elementary, middle, and high schools with 22 selected state parks.

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* Held five (5) regional Summits to share information, recognize students, teachers and park staff for their accomplishments and plan for next year. More than 250 participants attended the Summits representing twenty-four schools and twenty-one parks. Eleven new schools and seven parks have expressed an interest in becoming part of the program next year.

* Allowed students to provide service to the parks through hands-on learning experiences in environmental education.

* Enabled students to choose projects from a variety of needs such as endangered species surveys and plant inventories, planting sea oats, constructing nature trails, maintaining native nursery plants, and other projects mutually agreed upon by the park and the students with their teacher sponsor(s).

* Allowed students to experience feelings of pride and empowerment from providing service in their own communities and to develop feelings of ownership, responsibility and support for the park and the environment.

* Provided opportunities through structured activities and projects to build life skills such as communication, critical thinking, and self-esteem, while enhancing the students' knowledge of math, science, environmental awareness and career opportunities. Valuable job and safety skills were learned, including handling small hand tools.

* One school and park received:
    - The J. C. Penney Golden Rule Award
    - The Edge of Excellence Mini-Grant
    - Outstanding Business Partner for Sarasota County Schools
    - Has been selected to be presented at the National Gifted Educators Conference, November, 1996

* One project discovered a natural spring pond while conducting exotic plant removal and worked to restore it to its natural ecosystem.

* Three students have been conducting seagrass research for a park and were selected to present their findings at their Regional Science Fair and the Florida Junior Academy of Sciences.

* Students in two schools produced an information video for their park, including research, script writing and filming, with one school receiving assistance from its local FOX TV station.

* Students at another school wrote letters to their senator thanking him for his support of equipment purchase benefiting the park.

* Several schools helped build trails including one that is barrier free. In the words of one teacher: *"Not only are we building a trail; we are building bridges of human understanding that will shape these children for a lifetime." Pine View School Teacher*

* Thirteen schools were recognized in press conferences held around the state by the Florida Park Service in appreciation of their contributions to the state parks.

* Nine newspaper articles about students' participation in the program were featured; one school wrote letters to the editor which were presented on the editorial page.

* Two PARKnership schools received media coverage on their local television stations.

Big Lagoon S.R.A.
Jim Bailey Middle School

Park Liaison: ***Jim Crane***
Teacher Liaisons: ***Shelia Lollar, Dena Wiggers***
Number of students participating in 95/96 year: ***340***

Activities: The seventh grade students participated in the butterfly garden design exercise to draw their idea of what the butterfly garden should be. Each class selected a winner, park selected one as design for butterfly garden. Students developed their butterfly garden including completing the installation of a water line and sprinklers, preparing mulch beds for plants, installing a rail fencing and planting. Students also identified the plants and participated in a dedication ceremony which drew media coverage. Additionally, students participated in the presentation of their activities at the regional Summit.

Learning objectives accomplished: Students learned valuable skills in construction, landscaping and plant care. Science skills were enhanced through plant identification and propagation. Additionally, students gained an understanding of the importance of state parks, the value of volunteerism and community service and explored possible career opportunities.

Bill Baggs Cape Florida S.R.A.
Key Biscayne Elementary School

Park Liaison: ***Edwin DeJesus and Elizabeth Elliot***
Teacher Liaison: ***Bobbie Savage***
Number of students participating in 95/96 year: ***67***

Activities: Students assisted in a dune restoration project using native plants, created and installed park bulletin board displays concerning litter and its effects on the environment, and participated in litter clean-up.

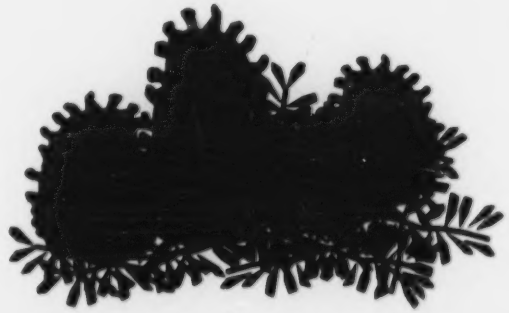
Learning objectives accomplished: Students increased their knowledge of environmental careers, the importance of volunteerism and community service. They also gained an understanding of the importance of recycling and increased their knowledge regarding native plants and their importance in restoring natural areas.

Cayo Costa State Park
New Challenge High School

Park Liaison: ***Sally Falkinburg***
Teacher Liaison: ***Tom Dunn***
Number of students participating in 95/96 year: ***11***

Activities: Students trimmed *Nickerbean* in the camping area, erected an interpretive display case, participated in litter clean-up of the beach and mangrove areas, provided trail maintenance and exotic removal. Additionally, they presented at the regional Summit and participated in planning discussions for next year's activities.

Learning objectives accomplished: students learned a great deal about construction problems while erecting the display case; learned the importance of nature trails to the public; acquired skills in the use of small hand tools. Additionally, they gained valuable knowledge in resource management through the use of prescribed fire as tool by participating in the clearing of fire break and discussions on the importance of burning. Students also increased their presentation skills through their preparation for the regional Summit.



DeLeon Springs S.R.A.
McInnis Elementary School

Park Liaison: ***Steve Banton and Toussiant Roberson***
Teacher Liaison: ***Irene Kale***
Number of students participating in 95/96 year: ***220***

Activities: Students participated in cypress tree plantings, planting of a butterfly garden, and construction of *kestrel* boxes.

Learning objectives accomplished: Students were able to identify certain butterflies and native plants found in their own backyard. They learned the importance of preventing erosion. Students also increased their research and report writing skills, enhanced their knowledge of the history of the area, as well as in the subject of ecology. The lesson of personal responsibility and respect for property was learned. Students also gained an understanding of the career opportunities available in the environmental field.

Don Pedro Island SRA
Port Charlotte High School

Park Liaison: ***Michael Cohorn***
Teacher Liaison: ***Bill Burns***
Number of students participating in 95/96 year: ***56***

Activities: Students participated in exotic removal, conducted water sampling, collected plant and fish specimens for identification and analysis including population and gender ratios. Students also participated in a gopher tortoise census survey, developed school projects based on their PARKnership activities and presented at the regional Summit.

Learning objectives accomplished: The subjects of math and biology were integrated through the use of such park activities as analyses and sampling. Students gained valuable experience in writing and critical thinking skills. The students also increased their knowledge of environmental issues through discussions, presentations by the rangers and hands-on activities. Career opportunities in the environmental field were also a topic of conversation.

Hillsborough River State Park
Dunbar Elementary School

Park Liaison: ***Michael Castle***
Teacher Liaison: ***Bonnie Swanson***
Number of students participating in 95/96 year: ***18***

Activities: Students participated in exotic plant removal, manually pulling approximately 2500 *Casear* weed from the picnic area; planted longleaf pine trees; and participated in Project Learning Tree activities. Students were introduced to the resource management tool of prescribed burning by viewing a video and test burned various fuels in grills; participated in a nature walk, reptile discussions and created an interpretive display on an animal's ability to camouflage itself. They also experienced first person interpretation by a solider from 1837 at Fort Foster.

Learning objectives accomplished: Students gained an understanding of Florida's ecosystems and ecosystem management, enhanced their knowledge in plants, reptiles, the longleaf pine, soil, water and animals. Additionally, they increased their self-esteem and self expression by drawing a poster which was included in the interpretive display.

The program realized a 25% increase in students asking to attend the program.

Honeymoon Island State Park
Countryside High School

Park Liaison: ***Perry Smith & Mark Knapke***
Teacher Liaison: ***Patti Boylan***
Number of students participating in 95/96 year: ***138***

Activities: Students participated in a restoration project at Cafe Honeymoon; conducted water quality sampling; assisted at the PARKnership display at the Florida State Fair, planted and mulched along observation area at park. A *Trail Guide* program was developed allowing students to serve as Field Guides for 56 pre and kindergarten students. Additionally they served as Ecomentors presenting an introduction of the park to 187 kindergarten students, volunteered at the statewide *Envirothon* local Snook Tournament. They also presented at the regional Summit.

Learning objectives accomplished: Students increased their speaking, writing and presentation skills, gained an understanding of Florida's ecosystems and ecosystems management and the importance of state parks to the community. Students learned first hand the value of volunteerism and community service acting as role models to the younger students and explored future career opportunities. Subjects covered included geology, botany, chemistry, ecology, interdisciplinary creative writing and community relations.

One parent has agreed to donate his time to complete the platform for the observation area. Eight new elementary school teachers have expressed an interest in having presentations made to their classes by the PARKnership Ecomentors and Trail Guides. Forty-seven students wrote thank you notes to Senator Latvala for supporting the purchase of a "rock picker" for the park.

Honeymoon Island State Park
Hunsinger Elementary School

Park Liaison: ***Perry Smith & Doug Watson***
Teacher Liaison: ***Gina Massotto***
Number of students participating in 95/96 year: ***16***

Activities: Students worked on the Caladesi Island garden project; a restoration project moved rocks off the beach; conducted exotic removal and planted native plants; clean-up of the beach and salt marsh areas; collected sea shells; cared for a xeriscape garden and attended an end of the year picnic in their honor and received recognition at an awards presentation at their school.

Learning objectives accomplished: Students increased their applied math skills through measuring for soil amount and plants, learned cooperative social skills, increased and applied their knowledge of agriculture and learned to use small hand tools. Additionally, students learned the value of volunteerism and community service and increased their critical thinking and problem solving skills when locating the plants for their xeriscape garden.

A 50% increase in students asking to participate was realized. All of the participating students showed an increase in grades and attendance due to their desire to participate in the program.

Hugh Taylor Birch S.R.A.
Coral Park Elementary School

Park Liaison: ***John G. Frosbutter***
Teacher Liaison: ***Sandra Bell***
Number of students participating in 95/96 year: ***39***

Activities: Students attended an overnight camp out at the Elks Youth Camp and were given a camp fire program of Florida Indians, a night walk, and a slide program. A work day accompanied the camp out centering on preparing a site for a butterfly garden, doing photo plots, and building duck boxes and bird feeders. Parents participated in the events and did all of the cooking for the students. Students also participated in the "March for Parks" event, hung owl and woodpecker houses, and presented at the regional Summit.

Learning objectives accomplished: Students gained an understanding of type of plants needed in a butterfly garden, learned valuable job skills, team building skills, and enhanced their presentation skills. Students also increased their knowledge about Florida's ecosystems, the importance of volunteerism and community service and explored environmental career opportunities. Students also received recognition through local news coverage of their partnership with the park.

Park staff provided the students with a laminated photo identification/business card as a member of the program.

Hugh Taylor Birch S.R.A.
Sandpiper Elementary School

Park Liaison: ***John G. Frosbutter***
Teacher Liaison: ***Carol Wilson***
Number of students participating in 95/96 year: 18

Activities: Students attended an overnight camp out at the Elks Youth Camp and were given a camp fire program of Florida Indians, a night walk, and a slide program. A work day accompanied the camp out centering on preparing a site for a butterfly garden, doing photo plots, and building duck boxes and bird feeders. Parents participated in the events and did all of the cooking for the students. Students participated in the "March for Parks" event; attended a presentation on career opportunities in the environmental field, made plant pressings and posters and presented at the regional Summit.

Learning objectives accomplished: Students gained an understanding of Florida's ecosystems and plant communities, increased their writing and presentation skills, learned team building skills, and learned first hand the value of volunteerism and community service through recognition by the local media. Students also learned valuable employment skills and explored possible environmental career opportunities.

Hugh Taylor Birch S.R.A.
Welleby Elementary School

Park Liaison: ***John G. Frosbutter***
Teacher Liaison: ***Carol Wilson***
Number of students participating in 95/96 year: ***27***

Activities: Students attended an overnight camp out at the Elks Youth Camp and were given a camp fire program of Florida Indians, a night walk, and a slide program. A work day accompanied the camp out centering on preparing a site for a butterfly garden, doing photo plots, and building duck boxes and bird feeders. Parents participated in the events and did all of the cooking for the students. Students participated in the "March for Parks" event; attended a presentation on career opportunities in the environmental field, made plant pressings and posters and presented at the regional Summit.

Learning objectives accomplished: Students gained an understanding of Florida's ecosystems and plant communities, learned team building skills, increased their presentation and writing skills, and learned first hand the value of volunteerism and community service through recognition by the local media. Students also learned valuable employment skills and explored possible environmental career opportunities.

John D. MacArthur State Park
Jupiter High School

Park Liaison: ***Ann Mathews***
Teacher Liaison: ***Ron Wenrick***
Number of students participating in 95/96 year: ***35***

Activities: Students developed a butterfly garden; trimmed shrubs and trees; re-mulched the path, and conducted a litter clean-up. Students also conducted exotic plant removal; participated in a "Remains to be Seen" interpretive training and were given a demonstration of the use of chemical management. They also assisted with an ongoing mangrove project by weeding mangrove areas and will be part of group caring for mangroves at their high school. Several students presented at the regional Summit, and assisted in a planning session for next year's activities.

Learning objectives accomplished: Students learned the tasks associated with continual maintenance of a trail; increased their knowiedge of plant identification and beneficial plants for butterflies. Valuable skills were learned using small hand tools, as well as problem solving skills. Students' knowledge of Florida's ecosystems and ecosystems management, and the importance of volunteerism and community service was also enhanced. Specific learning objectives included an ecology lesson on exotic plants and how they are adversely affecting Florida's native plant life; and an ecology lesson on mangroves - their reproduction, habitat requirements and why they are so vital to Florida's fish and crustacean populations.

John Pennekamp Coral Reef State Park
Key Largo School

Park Liaison: ***Butch Proulx***
Teacher Liaison: ***Sue Hale***
Number of students participating in 95/96 year: ***130***

Activities: Students participated in an orientation of the ranger station, an interpretive tour of the visitor center and park trail system as well as a chance to feed the fish in aquarium. Several students assisted with removal of Spotted Ground Orchids and beach litter clean-ups; attended a tour of the mangrove trail, and assisted with exotic removal of young trees.

Learning objectives accomplished: Students increased their awareness of the environment and the importance of volunteerism. When the park celebrated Earth Day, the students asked their parents to take them. The students have become more familiar with native tree species, and animals. One example given by the teacher is that the students are able to distinguish between exotic plants and natives and have increased their vocabulary, as well. The students have also increased their environmental awareness. Students have gained in knowledge of environmental career opportunities. Their understanding of Florida's ecosystems and ecosystems management have also increased.

A survey showed that 75% of the students had not visited the park. After the 1995/96 school year, all of the students visited and volunteered at the park.

Lignumvitae Key State Botanical Site
Coral Shores High School

Park Liaison: ***Pat Wells***
Teacher Liaison: ***David Makepeace***
Number of students participating in 95/96 year: ***34***

Activities: Students participated in trail maintenance, exotic plant removal and litter removal. Classroom programs addressed the subjects of geology and history of the Florida Keys and biology and the management of natural areas.

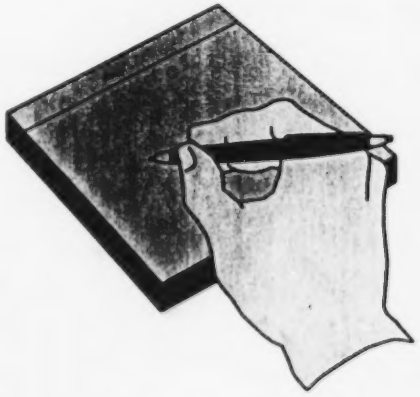
Learning objectives accomplished: Students gained an understanding of Florida's ecosystems and ecosystems management. Their local Florida history and geology skills were enhanced through participation in class presentations. The importance of volunteerism and community service was also impressed upon the students.

Maclay State Gardens
Maclay School

Park Liaison: ***Ken Lewis***
Teacher Liaison: ***Denny Bunn***
Number of students participating in 95/96 year: ***10***

Activities: High school students conducted research on the subjects found at the interpretive stations in the Lake Overstreet Trail Guide. They also wrote and edited text and drew sketches for the guide. The students also presented at the regional Summit.

Learning objectives accomplished: The students increased their knowledge of plants and animals through the research conducted. Park activities were integrated into the classroom science activities. They also enhanced their writing and presentation skills, as well as gained an understanding of Florida's ecosystems, environmental career opportunities, and learned the value of volunteerism and community service. Students also took ownership in the park of which they share a common boundary.



Manatee Springs State Park
Chiefland Middle School

Park Liaison: ***Paul Perras***
Teacher Liaison: ***Tim Roach***
Number of students participating in 95/96 year: 20

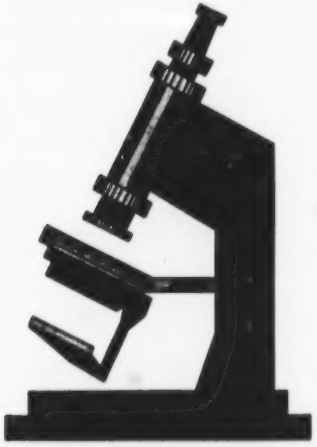
Activities: Students participated in a clean-up along Suwanne River; girdled 94 hardwood trees; conducted a stream profile at two points along stream and assisted with campsites maintenance. They also assisted with Light-up Manatee Springs Christmas celebration; produced a video about the park; attended a three day camping trip in the park and a beach restoration project.

Learning objectives accomplished: Students increased their writing and presentation skills, gained an awareness about environmental careers and enhanced their knowledge of Florida's ecosystems. The students also learned the importance of state parks to the community and environment and the value of volunteerism and community service. Park activities were supplemented with classroom integration of the biodiversity curriculum enhancing science knowledge.

The school was selected to field test activities from the Department of Education Biodiversity Curriculum which complemented the PARKnership activities.

Oleta River S.R.A.
North Miami Beach High School

Park Liaison: ***Mark Nelson & Warren Poplin***
Teacher Liaison: ***Dr. Barbara Rothstein***
Number of students participating in 95/96 year: ***59***



Activities: Students participated in exotic removal; hardwood plantings; organism identification, population analysis and seagrass research project. Two environmental education plays are being written by one student. Under the guidance of the park's volunteer coordinator, the students began developing a self guided tour and activities book for use by grade school students. This project will be completed in the next school year.

Learning objectives accomplished: Students increased their applied math, research, writing and critical thinking skills. Their knowledge of Florida's ecosystems and ecosystem management were also enhanced. The value of volunteerism and community service was realized as students performed over 800 hours of service to the park through the project. Three students have been part of an on-going seagrass study which was presented at the Regional Science Fair and Florida Junior Academy of Sciences.

69

Oscar Scherer State Park
Pine View School

Park Liaison: ***Bobbi Rodgers***
Teacher Liaisons: ***Denise Maughan, Barbara Shirley, Steffanie Gould Olson***
Number of students participating in 95/96 year: ***90***

Activities: Students participated in the construction of a barrier free trail. They hosted their parents for an overnight camp-out, introducing them to the trail. The accessible trail was officially dedicated on April 10 with many students attending. Attending were students from the Oak Park School who are mentored by the Pine View School students in nature studies along the trail. The Oak Park School is a school for students with a variety of developmental and physical disabilities. Students participated in discussions on plant species needed for butterfly gardens, identified and removed invasive plants and planted a butterfly garden. Students also presented at the regional Summit.

Learning objectives accomplished: The PARKnership program is a part of the science, language and arts curriculum for the fourth and fifth grades. Students knowledge of Florida's ecosystems, plant and animal species, environmental career opportunities and the importance of volunteerism and community service have increased. Their presentation and social skills have also been enhanced through the mentoring of students at Oak Park School. The students increased their awareness of people with disabilities through interaction with the students and from presentations by representatives from organizations such as the Southeast Guide Dogs Organization. Additional resources included Project Wild, Schoolyard Wildlife and Peterson Guides.

Oscar Scherer State Park/Pine View School continued

Following are samples of the student reactions from working with the Oak Park students:

> *"I was very sad and nervous at first and then I realized that they were people just like you and me."*
>
> *"It made me feel proud that we did something for other people and I learned not to be afraid."*

The PARKnership Program has won many awards including:

* The J. C. Penney Golden Rule Award
* The Edge of Excellence Mini-Grant
* Outstanding Business Partner for Sarasota County Schools
* Program has been selected to be presented at the National Gifted Educators Conference, November, 1996

"While this program began as a joint enterprise to work with Oscar Scherer Park and build a handicapped trail, it has evolved into much more. The Pine View and Oak Park students are getting outstanding, hands on lessons in nature and ecology. Most of all, both groups are learning more about interacting with people who are different. Not only are we building a trail; we are building bridges of human understanding that will shape these children for a lifetime."

Pine View School Teacher

Paynes Prairie State Preserve
Kimball Wiles Elementary School

Park Liaison: ***Steven Davenport***
Teacher Liaison: ***Zane Greathouse***
Number of students participating in 95/96 year: ***290***

Activities: Students constructed an animal tracking station on school grounds; maintained the Bolen Bluff trail including spreading gravel and limerock and placing trail markers and developed a written trail guide for visitors. Students also participated in a family camp-out and conducted a litter clean-up and trimmed and raked the recreation area.

Learning objectives accomplished: Students increased their knowledge of Florida's ecosystems, nature's use of decaying materials to sustain animals and organisms and identification of animal tracks. Students also enhanced their writing, presentation, social and science skills. Their understanding of environmental careers was also increased.

Port Charlotte Beach SRA
Lemon Bay High School

Park Liaison: ***Richard Storbserg***
Teacher Liaison: ***Doug Stone***
Number of students participating in 95/96 year: ***32***

Activities: Students conducted a survey and mapped the tern nesting area; surveyed, developed and planted a landscape plan for the entrance to the park; collected and identified shells for an interpretive display; participated in exotic plant removal and trail maintenance; and presented at the regional Summit.

Learning objectives accomplished: Students learned valuable planning skills, increased their knowledge of plants through identification, enhanced their math, biology and critical thinking and presentation skills. The students also learned a valuable social lesson as their work on the landscaped entrance was vandalized which provided an opportunity for problem solving.

Ravine State Gardens
Interlachen High School

Park Liaisons: ***Frank Alogna, Floyd Joyner, Linda Stratman***
Teacher Liaison: ***Eric Sheffield***
Number of students participating in 95/96 year: ***105***

Activities: Students conducted research on the butterfly garden; participated in trail construction and maintenance, removed exotic plants including the Air Potato and produced a video of the gardens to be used by those who are unable to visit the gardens.

Learning objectives accomplished: Students increased their knowledge of Florida's ecosystems including plant and butterfly species. They also increased their applied math and English skills through research. Valuable employment skills were enhanced including construction and other technical skills. Their understanding of environmental careers was also increased. The importance of volunteerism and community service was also learned by the students as they combined to provide 1200 hours of service to the park.

Participating teachers reported a reduction in the number of school discipline referrals and student absences, and an increase in student grades.

St. Andrews S.R.A.
Hutchinson Beach Elementary School

Park Liaison: *Shelly Yancey*
Teacher Liaison: Doedy Lark
Number of students participating in 95/96 year: *190*

Activities: Students created a bird nesting and resting area on the beach and participated in dune restoration by planting sea oats. This involved activities such as installing poles, webbing and signs. They also attended education sessions on Florida's ecosystems, dune systems and habitats. Students also presented at the regional Summit.

Learning objectives accomplished: Students increased their knowledge of Florida's ecosystems, focusing on sea oats, dunes, bird habitats, sea turtle and bird nesting areas. The students also increased their awareness of environmental careers, and learned the value of state parks to the environment and local community. Small groups allowed students to interact on a one to one basis with the park staff, gaining an understanding of their role in protecting Florida's fragile environment. The students also increased their presentation skills.

The students also saw first hand the direct benefits of their dune restoration project which was a result of damage from Hurricane Opal to the dune system.

Stephen Foster State Folk Culture Center
Lake City Middle School/(Columbia County Schools ESE)

Park Liaison: ***Elaine McGrath***
Teacher Liaisons: ***George Perry, Chris Bond***
Number of students participating in 95/96 year: 18

Activities: The students participated in beautification of several park areas and planned for construction of a greenhouse for horticulture management. Beautification was completed at the park entrance sign, craft square, ranger station and museum. The required request for permission to construct the greenhouse has been submitted to the Department of Management Services. Students anticipate continuing the project in the next school year contingent upon DMS approval. The students have already constructed several greenhouse tables in anticipation for continuation.

Learning objectives accomplished: Students gained an understanding of Florida's ecosystems and learned valuable job skills. Their knowledge of landscaping and horticulture management has been enhanced through classroom and hands-on activities. Valuable team building and socialization skills have also been realized as students must earn their participation in the program.

Talbot Islands GEO Park
Pearson Elementary School

Park Liaison: ***Heather Shuke***
Teacher Liaison: ***Shirley Mills***
Number of students participating in 95/96 year: ***33***

Activities: Students participated in the design and selection of recycling centers to be placed in the park. Stories were written, pictures and signs were drawn for display cases. Students also participated in a campfire and salt marsh program. Discussions were held with the students regarding the types of animals found on Talbot Islands and the effects of litter on animals. Students identified raccoon tracks and made molds. The students also prepared for their presentation at the regional Summit. Classroom resources used - Gutnik, Martin Experiments that Explore Recycling, (1992) The Millbrook Press: Connecticut, (video) Time and Again: Recycle, created by John Marshall High School and SC Johnson Wax in Milwaukee Wisconsin.

Learning objectives accomplished: Students gained an understanding of Florida's ecosystems and the importance of state parks to the community and environment. Students increased their science skills through the use of materials such as *Don't Teach Your Trash to Swim* coloring book, *Florida's Sea Turtles* by FPL, *The Hi-C Recycling Guide, with Disney's Bill Nye the Science Guy*", *Activity Book V The Salt Marsh*, by the Apalachicola National Estuarine Research Reserve, *Florida's Beaches and Shores*, by Department of Environment Protection and *Color the Coast*, Department of Environmental Protection. The students also increased their awareness of the importance of volunteerism and community service and environmental career opportunities.

Tomoka State Park
Ormond Beach Middle School

Park Liaison: ***Corine Burgess***
Teacher Liaison: ***Dawn Huro***
Number of students participating in 95/96 year: ***141***

Activities: Students participated in the mulching of trails, construction of signs for the trail; tagging and removal of *Brazilian Pepper* and *Lantana*; fence removal and cleaning of the bridge. Students also participated in the development of a video about their activities which included interview questions, narration and script writing. Additionally, the students wrote letters to the editor of the Daytona Beach *News Journal* about their community service through the PARKnership program. Preparation for the presentations at the regional Summit was also accomplished. Discussions on state parks and job opportunities in park management, education and skills needed for careers in park management were held with each above group.

Learning objectives accomplished: Students gained an understanding of Florida's ecosystems and ecosystems management. Environmental education through classroom instruction increased their knowledge of exotic species and writing skills. The importance of community service and volunteerism created a heightened awareness in the students through their writing of letters to the editor and creation of the displays for the regional Summit. Exploration of environmental career opportunities was accomplished through interaction with the park rangers, their preparation by listing 10 questions about careers for the rangers to answer, followed by discussion of the education and skills needed to acquire jobs in environmental protection.

Wakulla Springs State Park
Nims Middle School

Park Liaison: ***Jean Koch***
Teacher Liaison: ***Karen Study***
Number of students participating in 95/96 year: ***30***

Activities: Students served as mentors for an elementary school also participating in PARKnership. They assisted with planting of a butterfly garden, including weeding, planting and mulching. A social skills training was also held for the students utilizing the on-site restaurant. The students presented at the regional Summit. Mentor students assigned to the third grade at Wesson Elementary school assisted rangers with presentations on fire and the alligator.

Learning objectives accomplished: Students learned the importance of fire in natural systems management, increased their knowledge of plant and butterfly species, enhanced their socialization skills, and team building/cooperation skills. The importance of volunteerism and community service was also learned via the mentoring of other students. Through the mentoring and presentation preparation, students gained experience in presentation skills and displayed an increase in self-esteem and confidence. The opportunity to assist the rangers in their presentations also increased the students' awareness of environmental career opportunities.

Wakulla Springs State Park
Wesson Elementary School

Park Liaison: ***Jean Koch***
Teacher Liaison: ***Karen Deitrich***
Number of students participating in 95/96 year: ***30***

Activities: Students participated in a presentation on fire as a resource management tool. They planted a butterfly garden which included weeding, planting and mulching. Students also presented at the regional Summit.

Learning objectives accomplished: Students learned the importance of fire in natural systems management, increased their knowledge of plant and butterfly species and realized the importance of volunteerism and community service. Valuable employment skills were also learned using small hand tools. Their awareness of the career opportunities in the environmental field was also enhanced through a presentation titled "What is a Ranger?". Presentation and socialization skills were positively reinforced through the attendance at the regional Summit.

Wekiwa Springs State Park
Clay Springs Elementary School

Park Liaisons: ***Scott Spaulding***
Teacher Liaison: ***Diana Eagles***
Number of students participating in 95/96 year: ***100***

Activities: Students participated in various science projects and environmental activities at the park. They developed a self-guided tour brochure for publication. Students studying art produced sketches of specific plants found in the park as part of a regional Summit display. The display has been integrated into the parks permanent interpretive display. Students also wrote speeches on the environment, with two students selected to present at the regional Summit. Articles written by the students on environmental topics were published in the school's news letter. They also wrote letters listing their environmental concerns to members of the Legislature and delivered them during a field trip to Tallahassee.

Learning objectives accomplished: Students enhanced their reading, writing and research skills. Their knowledge of Florida's ecosystems and specific species was also enhanced. Through their presentations they also gained self-confidence and public speaking skills. Students explored career opportunities in the environmental field.

Wekiwa Springs State Park
Sabal Point Elementary School

Park Liaisons: ***Steve Eldredge***
Teacher Liaison: ***Linda Sawyer***
Number of students participating in 95/96 year: ***25 (180 students in special clean-up day)***

Activities: Students conducted script writing, research and taping of the video about Wekiwa Springs State Park. With assistance from FOX 35 (Orlando) the video, *Road Trip to Wekiwa Springs,* will be sent to schools and community groups interested in visiting the park. The students conducted a button design contest, with the winning buttons being produced and sold by students, which increased the visibility of the PARKnership program among the entire school population. The proceeds benefit the park.

Learning objectives accomplished: Students gained an understanding of Florida's ecosystems and ecosystems management while enhancing their writing and research skills. They also realized the value of the park to the community and environment and learned first hand the value of volunteering and community service with their button sales, which also enhanced their math and economic skills.

Four students were selected to job shadow a park ranger during his daily duties, increasing their knowledge of employment skills and environmental career opportunities. An additional 180 students participated in a one day park event with FOX 35 titled "Big Help". Activities consisted of erosion control, exotic plant removal and river clean-up.

List of Paired Schools and Parks
Participating in the 1995-96 PARKnership Program

Schools	State Park
Patti Boylan Countryside High School 3000 SR 580 Clearwater, Fl 34621 Phone: (813) 725-7956 FAX: (813) 725-7990	Perry Smith, Park Manager Honeymoon Island State Recreation Area #1 Causeway Blvd., Dunedin FL 34698 Phone: (813) 469-5942 Fax: (813) 469-5703
Gina Massotto Calvin Hunsinger School 1863 Betty Lane, North Clearwater, FL 34615 Phone: (813) 469-4260 FAX:	Perry Smith, Park Manager Honeymoon Island State Recreation Area #1 Causeway Blvd., Dunedin FL 34698 Phone: (941) 469-5942 Fax: (941) 469-5703
Linda Sawyer Assistant Principal Sabal Point Elementary 960 Wekiwa Springs Road Longwood, Fl 32779 Phone: (407) 869-5056 FAX: (407) 869-8914	Peter Scalco, Park Manager Wekiva Basin GEOpark 1800 Wekiwa Circle Apopka, FL 32712 Phone: (407) 884-2009 Fax: (407)884-2014
Diana Eagles Clay Springs Elementary 555 N Wekiva Springs Rd Apopka, Fl 32712-4009 Phone: (407) 884-2289	Peter J. Scalco, Park Manager Wekiva Basin GEOpark 1800 Wekiwa Circle Apopka, Fl 32712 Phone: (407)884-2009 Fax: (407)884-2014
Eric Sheffield Interlachen High School Rt. 1, Box 10 Interlachen, Fl 32048 Phone: (904) 684-2116 FAX: No Fax	Frank Alogna, Park Manager Ravine State Gardens P.O.Box 1096 Palatka, FL 32177 Phone: (904) 329-3721 Fax: (904) 329-3718

Pam LaRocque
Pine View School for the Gifted
1 Python Path
Osprey, FL 34229
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Fax: (813) 486-2042

Barbara Rothstein
North Miami Beach Senior High School
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N. Miami Beach, FL 33162
Phone: (305) 949-8381
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Karen Study
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Tallahassee, FL 32310-6100
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Karen Dietrich
Wesson Elementary School
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Tallahassee, FL 32301
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Billie Borgquist
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Panama City, FL 32407
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Peggy St. James
Sue Hale
Key Largo Elementary/Middle
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Osprey, FL 34229
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Robert Wilhelm, Park Manager
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